

36. (Amended) A video display, comprising:
a display screen for showing a video image; and
an array of field emission devices [capable of] for forming the video image, wherein the array of field emission devices comprises:

at least one emitter having an implantation [that releases] for releasing electrons at a predetermined energy level, wherein the implantation [reduces the] is conforming to a surface of the at least one emitter for reducing a dielectric effect of the at least one emitter and is stable in the presence of the outgassing; and

a light-emitting target [that radiates] for radiating [when the released electrons strike the light-emitting target] in response to the released electrons.

REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on November 6, 2002, and the references cited therewith.

Claims 1-3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23-25, 27-33, and 36 are amended; as a result, claims 1-36 are now pending in this application.

§102 Rejection of the Claims

Claims 3-22 and 27-36 were rejected under 35 USC § 102(e) as being anticipated Zimlich (U.S. Patent No. 6,130,106).

Claim 3 recites a device comprising, among other elements, at least one emitter having an implantation. As amended, claim 3 recites that the implantation is "conforming" to a surface of the at least one emitter. Various figures of present invention show the "conforming" structure. For example, FIG. 1A shows implantation 118 conforming to a surface of tip 101. The implantation "conforming" to a surface of the emitter lowers a dielectric constant of the emitter to enhance electron emission and to inhibit degradation of the emitter.

Zimlich discloses a device having structures different from the structures of the device of claim 3. The device of Zimlich has different structures because Zimlich tries to solve a different problem. Zimlich describes a prior art device having a resistor placed between an emitter and a conductive layer to limit current in a runaway condition. The resistor of the prior art may be

shorted during operation or may have defect during processing. Zimlich eliminates the resistor to avoid the short and defect problems. In place of the resistor, Zimlich implants n-type or p-type ions (acceptors or donors) into the emitter to limit the current. Because the purpose of Zimlich is to limit the current without the resistor, the emitter of Zimlich has a structure with different ion concentrations in different portions of the emitter. None of these different portions is "conforming" another portion. These different portions are stacked on top of each other. For example, FIG. 7 of Zimlich shows emitter 52 having a stack of top, middle, and base (56, 54, and 50) portions with different ion concentrations to limit the current in the emitter. Zimlich does not disclose an implantation "conforming" to a surface of the emitter.

Based on the differences above, since Zimlich does not disclose all of the elements of the present invention as claimed in claim 3, this claim is not anticipated by Zimlich. Applicant respectfully requests that the rejection be reconsidered and withdrawn and that claim 3 and its dependent claim be allowed.

Independent claims 5, 7, 9, 11, 13, 15, 17, 19, 21, 27-33, and 36 are amended. As amended, these claims recite elements similar to the elements of claim 3. Thus, these claims are also not anticipated by Zimlich for reasons similar to the reasons presented above regarding claim 3. Applicant requests that the rejection be reconsidered and withdrawn and that these claims and their dependent claims be allowed.

§103 Rejection of the Claims

Claims 1, 2, and 23-26 were rejected under 35 USC § 103(a) as being unpatentable Zimlich in view of Goodman et al. (U.S. Patent No. 5,311,055).

Claims 1 and 23-25 are amended. As amended, these claims recite elements similar to the element of claim 3. Thus, these claims are also not anticipated by Zimlich for reasons similar to the reasons presented above regarding claim 3. Further, none of the combination of Zimlich and Goodman et al. discloses all of the elements of these claims. Accordingly, Applicant requests that the rejection be reconsidered and withdrawn and that claims 1 and 23-25 and dependent claims 2 and 26 be allowed.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's representative at (612) 373-6969 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this 6th day of February, 2003.

Name

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Signature

